What Is Claimed Is:

1.   A sensor element (10) for determining a property of a measuring gas, preferably for determining the concentration of a gas component in the measuring gas, including at least one electrode (42, 43) applied on one solid electrolyte (21, 22), the electrode being in contact with the measuring gas via a diffusion path in which a diffusion barrier (51, 151) is situated, wherein a means (52, 152) is provided in the region of the side of the diffusion barrier (51, 151) facing away from the electrode (42, 43), the means reducing the diffusion cross section in the region of the side of the diffusion barrier (51, 151) facing away from the electrode (42, 43).

2.   The sensor element as recited in Claim 1,
wherein the means (52, 152) has a smaller pore proportion than the diffusion barrier (51, 151) and/or is gas-impermeable.

3.   The sensor element as recited in Claim 1 or 2,
wherein the diffusion barrier (51, 151) has an essentially cylindrical or hollow-cylindrical shape.

4.   The sensor element as recited in Claim 3,
wherein the electrode (42, 43) has an annular shape and surrounds the diffusion barrier (51, 151) so that the exhaust gas is able to travel through a gas entry opening (36) into the interior region of the diffusion barrier (51, 151) and from there via the diffusion barrier (51, 151) to reach the electrode (42, 43).

5.   The sensor element as recited in Claim 3 or 4,
wherein the means is an annular element (52) which is provided in the region of the interior lateral surface of the diffusion barrier (51) and/or in the region of the gas entry opening (36).

6.   The sensor element as recited in Claim 3 or 4,
wherein the means is at least one arrow-like element (152) which is provided in the region of the interior lateral surface of the diffusion barrier (151) and/or in the region of the gas entry opening (36).

7.   The sensor element as recited in Claim 6,

wherein the height of the arrow-like element (152) corresponds to the height of the diffusion barrier (151).

8.   The sensor element as recited in Claims 3 through 7,

wherein

$$\frac{A_1}{r_1} > \frac{A_2}{r_2}$$

radii r_1 and r_2 relating to the center line of the diffusion barrier (51, 151), A_1 indicating the diffusion cross section at the distance r_1 from the center line of the diffusion barrier (51, 151) and A_2 indicating the diffusion cross section at the distance r_2 from the center line of the diffusion barrier (51, 151), the means reducing the diffusion cross section lying at distance r_2, but not distance r_1, from the center line of the diffusion barrier (51, 151), and r_1 being greater than r_2.